

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Lot 1 Crosswinds	Builder Name:	Rhett Smithey
Street:		Permit Office:	Columbia County
City, State, Zip:	Lake City, FL, 32025	Permit Number:	
Owner:	N/A	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia(Florida Climate Zone 2)
1. New construction or existing	New (From Plans)	10. Wall Types(1899.0 sqft.)	Insulation Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=13.0 1620.00 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0 279.00 ft ²
4. Number of Bedrooms	3	c. N/A	
5. Is this a worst case?	No	d. N/A	
6. Conditioned floor area above grade (ft ²)	1677	11. Ceiling Types(1760.0 sqft.)	Insulation Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0 1760.00 ft ²
7. Windows(163.3 sqft.)	Description	b. N/A	
a. U-Factor:	Dbl, U=0.36	c. N/A	
SHGC:	SHGC=0.25	12. Roof(Comp. Shingles, Vented)	Deck R=0.0 1875 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	6 412
c. U-Factor:	N/A	b.	
SHGC:		c.	
Area Weighted Average Overhang Depth:	4.737 ft	14. Cooling Systems	kBtu/hr Efficiency
Area Weighted Average SHGC:	0.250	a. Central Unit	36.3 SEER2:15.00
8. Skylights	Description	15. Heating Systems	kBtu/hr Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	36.3 HSPF2:8.20
SHGC(AVG):	N/A	16. Hot Water Systems	
9. Floor Types	Insulation	a. Electric	Cap: 50 gallons
a. Slab-On-Grade Edge Insulation	R= 0.0	ft ²	EF: 0.920
b. N/A	R=	ft ²	
c. N/A	R=	ft ²	
		b. Conservation features	
		17. Credits	None CV, Pstat

Glass/Floor Area: 0.097

Total Proposed Modified Loads: 39.57

PASS

Total Baseline Loads: 45.13

NOTE: Proposed residence must have annual total normalized Modified Loads that are less than or equal to 95 percent of the annual total loads of the standard reference design in order to comply.

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: W.M.C. M

DATE: 6 / 26 /2025

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: _____

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____



- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Default duct leakage does not require a Duct Leakage Test Report.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT**PROJECT**

Title: Lot 1 Crosswinds	Building Type: User	Bedrooms: 3	Address type: Lot
Owner: N/A		Conditioned Area: 1677	Lot #: 1
Builder Home ID:		Total Stories: 1	Block/SubDivision: Crosswinds
Builder Name: Rhett Smithey		Worst Case: No	PlatBook:
Permit Office: Columbia County		Rotate Angle: 0	Street:
Jurisdiction:		Cross Ventilation: Yes	County: Columbia
Family Type: Detached		Whole House Fan: No	City, State, Zip: Lake City, FL, 32025
New/Existing: New (From Plans)		Terrain: Suburban	
Year Construct: 2025		Shielding: Suburban	
Comment:			

CLIMATE

✓ Design Location	Tmy Site	Design Temp	Int Design Temp	Heating Degree Days	Design Moisture	Daily temp Range
		97.5%				
FL, Gainesville	FL_GAINESVILLE_REGIONA	32	92	70	75	1305.5
						51
						Medium

BLOCKS

✓ Number	Name	Area	Volume
1	Block1	1677	15093 cu ft

SPACES

✓ Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
1	Main	1677	15093	Yes	6	3	Yes	Yes	Yes

FLOORS (Total Exposed Area = 1677 sq.ft.)

✓ #	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim.	U-Factor Joist	Slab Insul. Vert/Horiz	Tile	Wood	Carpet
1	Slab-On-Grade Edge Ins	Main	218.6667	1677 sqft	0.0	---	0.304	2 (ft)/0 (ft)	0.00	0.00
										1.00

ROOF

✓ #	Type	Materials	Roof Area	Gable Area	Framing Fract.	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
1	Gable or shed	Composition shingles	1875 ft ²	420 ft ²	0.11	Medium	Y	0.96	No	0.9	No	0	26.57

ATTIC

✓ #	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
1	Full attic	Vented	300	1677 ft ²	Y	N

CEILING (Total Exposed Area = 1760 sq.ft.)

✓ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
1	Flat ceiling under attic(Vented)	Main	38.0	Double Batt	1760.0ft ²	0.024	0.11	Wood

INPUT SUMMARY CHECKLIST REPORT**WALLS**

(Total Exposed Area = 1899 sq.ft.)

✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
1	S	Exterior	Frame - Wood	Main	13.0	7.0	8	9.0	0	69.0	0.084	0.23	0.75	0	%
2	S	Exterior	Frame - Wood	Main	13.0	21.0	4	9.0	0	192.0	0.094	0.23	0.75	0	%
3	S	Exterior	Frame - Wood	Main	13.0	12.0	4	9.0	0	111.0	0.094	0.23	0.75	0	%
4	E	Exterior	Frame - Wood	Main	13.0	34.0	0	9.0	0	306.0	0.094	0.23	0.75	0	%
5	N	Exterior	Frame - Wood	Main	13.0	12.0	8	9.0	0	114.0	0.094	0.23	0.75	0	%
6	W	Exterior	Frame - Wood	Main	13.0	12.0	0	9.0	0	108.0	0.094	0.23	0.75	0	%
7	N	Exterior	Frame - Wood	Main	13.0	20.0	8	9.0	0	186.0	0.094	0.23	0.75	0	%
8	E	Exterior	Frame - Wood	Main	13.0	8.0	0	9.0	0	72.0	0.094	0.23	0.75	0	%
9	N	Exterior	Frame - Wood	Main	13.0	31.0	4	9.0	0	282.0	0.094	0.23	0.75	0	%
10	W	Exterior	Frame - Wood	Main	13.0	20.0	0	9.0	0	180.0	0.094	0.23	0.75	0	%
11	S	Garage	Frame - Wood	Main	13.0	23.0	4	9.0	0	210.0	0.094	0.23	0.75	0	%
12	W	Garage	Frame - Wood	Main	13.0	7.0	8	9.0	0	69.0	0.094	0.23	0.75	0	%

DOORS

(Total Exposed Area = 40 sq.ft.)

✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
1	S	Exterior	Insulated	Main	None	0.46	3.00	0	6.00	8	20.0ft ²
2	S	Garage	Insulated	Main	None	0.46	3.00	0	6.00	8	20.0ft ²

WINDOWS

(Total Exposed Area = 163 sq.ft.)

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Total Area (ft ²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen
1	S	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	9.0	1	3.00	3.00	1.5	1.0	None	None
2	S	2	Vinyl	Low-E Double	Y	0.36	0.25	N	N	13.3	2	1.00	6.67	6.5	1.0	None	None
3	S	2	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	6.5	1.0	None	None
4	S	3	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.0	1	3.00	5.00	1.5	1.0	None	None
5	E	4	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None
6	N	5	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.0	1	3.00	5.00	1.5	1.0	None	None
7	N	7	Vinyl	Low-E Double	Y	0.36	0.25	N	N	20.0	1	3.00	6.67	9.5	1.0	None	None
8	N	7	Vinyl	Low-E Double	Y	0.36	0.25	N	N	9.0	1	3.00	3.00	9.5	1.0	None	None
9	N	9	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	1.5	1.0	None	None
10N	9	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None	
11W	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None	
12N	7	Vinyl	Low-E Double	Y	0.36	0.25	N	N	10.0	2	1.00	5.00	9.5	1.0	None	None	

INFILTRATION

✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
1	Wholehouse	Proposed ACH(50)	0.00029	1258	69.00	129.55	0.1027	5.0	All	15093 cu ft

GARAGE

✓ #	Floor Area	Length	Width	Roof Area	Exposed Perimeter	Area Under Uncond.	Avg. Wall Height	Exposed Wall Insulation
1	598 ft ²	26.0 ft ²	23.0 ft ²	598 ft ²	65 ft	598 ft	9 ft	1

INPUT SUMMARY CHECKLIST REPORT**MASS**

✓ #	Mass Type	Area	Thickness	Furniture Fraction	Space
___ 1	Default(8 lbs/sq.ft.)	0 ft ²	0 ft	0.30	Main

HEATING SYSTEM

✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Entry	----Geothermal HeatPump----	Power	Volt	Current	Ducts	Block
___ 1	Electric Heat Pump	None/Single		HSPF2: 8.20	36.3			0.00	0.00	0.00	sys#1	1

COOLING SYSTEM

✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block	
___ 1	Central Unit	None/Single		SEER2:15.0	36.3		1089	0.75	sys#1	1

HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixt. Flow	Trap	Pipe Ins.	Pipe length
___ 1	Electric	None	Garage	0.92 (0.92)	50.0 gal	40 gal	120 deg	Standard	Yes	None	12
	Recirculation System	Recirc Control Type		Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
___ 1	No			NA	NA	NA	No	NA	NA	NA	None

DUCTS

✓ #	Duct	Supply Location	R-Value	Area	Return Location	R-Value	Area	Leakage Type	AHU Location	CFM 25 TOT OUT	QN OUT	AHU SEALED	RLF	HVAC # Heat Cool
___ 1	Attic		6.0	412 ft ²	Attic	6.0	82 ft ²	Default Leakage	Garage	(Default)	(Default)			1 1

TEMPERATURES

Programable Thermostat: Y												
Ceiling Fans: N												
Cooling	[] Jan	[] Feb	[] Mar	[] Apr	[] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[] Oct	[] Nov	[] Dec
Heating	[X] Jan	[X] Feb	[X] Mar	[] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[] Oct	[X] Nov	[X] Dec
Venting	[] Jan	[] Feb	[X] Mar	[X] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[X] Oct	[X] Nov	[] Dec
✓ Thermostat Schedule: HERS 2006 Reference	Hours											
Schedule Type	1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM PM	78 80	78 80	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78
Cooling (WEH)	AM PM	78 78										
Heating (WD)	AM PM	66 68	66 68	66 68	66 68	68 68						
Heating (WEH)	AM PM	66 68	66 68	66 68	66 68	68 68						

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 88

The lower the Energy Performance Index, the more efficient the home.

,Lake City,FL,32025

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7. Windows**	Description	b. N/A		
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SHGC:	SHGC=0.25	12. Roof(Comp. Shingles, Vented)	Deck R=0.0	1875 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	6	412
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth:	4.737 ft	14. Cooling Systems	kBtu/hr	Efficiency
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8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	36.3	HSPF2:8.20
SHGC(AVG):	N/A	16. Hot Water Systems		
9. Floor Types	Insulation	a. Electric	Cap: 50 gallons	
a. Slab-On-Grade Edge Insulation	R= 0.0	b. Conservation features	EF: 0.920	
b. N/A	R=			
c. N/A	R=	17. Credits		
			None	
			CV, Pstat	

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: Lake City,FL,32025



*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Envelope Leakage Test Report (Blower Door Test)

Residential Prescriptive, Performance or ERI Method Compliance

2023 Florida Building Code, Energy Conservation, 8th Edition

Jurisdiction:	Permit #:
Job Information	
Builder: Rhett Smithey	Community:
Address:	
City: Lake City	State: FL
Zip: 32025	
Air Leakage Test Results <i>Passing results must meet either the Performance, Prescriptive, or ERI Method</i>	
<p><input type="radio"/> PRESCRIPTIVE METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2.</p> <p><input checked="" type="radio"/> PERFORMANCE or ERI METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2023 (Performance) or R406-2023 (ERI), section labeled as infiltration, sub-section ACH50. <i>ACH(50) specified on Form R405-2023-Energy Calc (Performance) or R406-2023 (ERI):</i> 5.000</p>	
$\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div 15093 = \text{ACH}(50)$ <div style="display: flex; align-items: center; justify-content: center;"> <input type="checkbox"/> PASS <input type="checkbox"/> When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department. </div>	
<p><u>Method for calculating building volume:</u></p> <p><input type="radio"/> Retrieved from architectural plans</p> <p><input checked="" type="radio"/> Code software calculated</p> <p><input type="radio"/> Field measured and calculated</p>	
<p>R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Dwelling units with an air leakage rate less than three air changes per hour shall be provided with whole-house mechanical ventilation in accordance with Section R403.6.1 of this code and Section M1507.3 if the <i>Florida Building Code, Residential</i>. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), <i>Florida Statues</i>, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to <i>the code official</i>. Testing shall be performed at any time after creation of all penetrations of the <i>building thermal envelope</i>.</p> <p>During testing:</p> <ol style="list-style-type: none"> 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures. 2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures. 3. Interior doors, if installed at the time of the test, shall be open. 4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed. 5. Heating and cooling systems, if installed at the time of the test, shall be turned off. 6. Supply and return registers, if installed at the time of the test, shall be fully open. 7. If an attic is both sealed and insulated at the roof deck, interior access doors and hatches between the conditioned space volume and the attic shall be opened during the test and the volume of the attic shall be added to the conditioned space volume for purposes of reporting the infiltration volume and calculating the air leakage of the home. 	
Testing Company	
<p>Company Name: _____ Phone: _____</p> <p>I hereby verify that the above Air Leakage results are in accordance with the 2023 8th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.</p>	
<p>Signature of Tester: _____ Date of Test: _____</p>	
<p>Printed Name of Tester: _____</p>	
<p>License/Certification #: _____ Issuing Authority: _____</p>	